

MALAKHOV, N.V.

Abbreviations of explanatory words in names of inhabited places.
Geod., i kart. no. 3:54-56 Mr '62. (MIRA 15:12)
(Cartography) (Names, Geographical)

MALAKHOV, N.V. (g. Gorno-Altaysk)

Evaluating the distortions on school maps. Geog.v shkole 24
no.6:45-50 N-D '61. (MIRA 14:10)

(Maps)

MALAKHOV, N.V.

Coordinating the selection of settlements and roads shown on maps.
Geod. 1 kart. no.8:56-60 Ag '60. (MIRA 13:10)
(Cartography)

MALAKHOV, N.V., veterinarnyy vrach

Biosynthesis of native terramycin. Veterinariia 41
no.10:94-95 0 '64. (MIRA 18:11)

1. Pyatigorskaya mezhoblastnaya veterinarnaya laboratoriya
po bor'be s boleznyami ptits.

MALAKHOV, N. V., (Veterinary Surgeon, Piatigorsk Inter-Oblast' Veterinary Laboratory for the Control of Bird Diseases)

Cultivation of fungi producing terramycin and biomycin

Veterinariya vol. 38, no. 10, October 1961, pp 77

~~MAIAKHON, N.V.~~, veterinarnyy vrach (Pyatigorsk)

Apparatus for feeding animals medicinal and nutritive substances.
Veterinariia 36 no.6:49-50 Ja '59. (MIRA 12:10)
(Veterinary instruments and apparatus)

MALAKHOV, N.V., vet. vrach.

How to make a cannula for syringes. Veterinariia 34 no.10:63 0 '57.
(MLRA 10:11)

1. Pyatigorakaya vazhrayonnaya kontora Zagotskot.
(Syringes)
(Veterinary instruments and apparatus)

BASHKIROV, A.A., veterinarnyy vrach Khersonskoy oblasti, Gornostayevskiy rayon;
MALAKHOV, N.V.; BAKULOV, I.

Aspects of using corn as feed. Veterinariia 33 no.8:82-84 Ag '56.
(MLRA 9:9)

1.Starshiy veterinarnyy vrach Dunayevskoy mashine-traktorney stantsii,
Stavropol'skogo kraya (for Malakhov).2.Glavnyy veterinarnyy vrach
molochnogo sovkhoza "Stychnoy", Nikolayevskogo rayona, Kamenskoy oblasti
(for Bakulov).
(Corn (Maize)) (Domestic animals--Diseases and pests)

MALAKHOV, N. V. (Dr., Epizootiologist)

"Calculation of the results of quantitative analysis of As_2O_3 ."

SO: Veterinariia 25 (4), 1948, p. 37

North Caucasian Trust of Horse Plants

MALAKHOV, N. ^K~~N~~

MALAKHOV, N. ^L~~N~~. (Doctor-Epizootiologist, North Caucasus Trust of Horse Plants.)
Concerning the intravenous infusion of medicinal substances according to the method
of Comrade Kolos.

So: Veterinariya; 24; 9; September 1947; Uncl.
TABCON

MALAKHOV, N. V. (Vet., Epizootiologist)

"On the problem of current disinfection,"

SO: Vet. 24 (4) 1947, p. 38

North Caucasian Trust of State Horse Plants

MALAKHOV, N.V., veterinarnyy vrach

Subculturing the producents of terramycin and biomycin.
Veterinariia 38 no.10:77-78 0 '61. (MIRA 16:2)

1. Pyatigorskaya mezhoblastnaya veterinarnaya laboratoriya po
bor'be s boleznyami pits.
(Terramycin) (Aureomycin)

1 11130-63

EWI(1)/EWI(2)/EWI(3) BD3/ES(W)-2
P2-L/Pab-L/Pi-L/Pe-L AT/IJP(C)

AFTTC/ASD/ESD-3/AFWL/SSD

ACCESSION NR: AP3091173

S/0089/63/014/005/0446/0452

AUTHOR: Bezbatchenko, A. L.; Kiznetsov, V. V.; Malakhov, N. P.; Semashko, N. N.

TITLE: Injections of ion beam into the magnetic trap "Ogra" 19

SOURCE: Atomnaya energiya, v. 14, no. 5, 1963, 446-452

TOPIC TAGS: ion injection, plasma, magnetic trap

ABSTRACT: The paper describes experimental results on obtaining, focusing, and injection of a beam of molecular hydrogen ions of energy up to 180 kev into the magnetic field of the "Ogra." The ion current introduced into the trap was about 150 ma. The ions are introduced into the trap through a magnetic channel which consists of an iron screen with a compensating current winding for weakening the field inside the channel (see Enclosure). The distortion of the magnetic field of the trap caused by the iron injection channel is in the working part only a few percent. Details of the ion source, ion injector optics, and of the magnetic channel are given. Orig. art. has: 7 figures.

ASSOCIATION: none

Card 1/1

MALAKHOV, N. P., SEMASHKO, N. N., GROSHEV, A. L., KUZNETSOV, V. V.,

"The Source of Hydrogen Ions for Mirror Machine Ogra"

report presented at the 6th Intl. Conf. on Ionization Phenomena in Gases,
Paris, France, 8-13 Jul 63

MALAKHOV, N. P.

Reports presented at the 5th Intl. Conference on Ionization Phenomena in Gases, Munich, 28 August - 2 September 1962.

- a. G. A. Rastvorov, A. M. Andriyev, V. F. Denichev and V. I. Yashnev
"Investigation of a Pulse Discharge in a Hollow Cylindrical Gas Sheath"
- b. B. G. Rezhnev and S. Maksimov
"Energy Measurements of Fast Electrons Formed During a Pulsed Pulse Discharge" Gorky
- c. A. B. Rezdin, A. N. Zaydel, and G. M. Malyshov
"On a Method of Spectroscopic Investigation of the Hydrogen Discharge Chamber Wall Interactions"
- d. V. F. Shkolenko, N. N. Sokolov
"On the Hydrogen Lines Resonance Under the Cathode Arc and Determination Wave Conditions"
- e. S. G. Mikhailov, R. A. Kozlovskiy, A. V. Kuzin, G. G. Polyakov, G. I. Shkolenko
"An Investigation of Plasma Discharge in the Magnetic Field"
- f. V. G. Kuznetsov, Yu. V. Skvortsov, V. N. Troshchinskaya, G. S. Yakovlev
"Symmetrical Current Cord"
- g. N. N. Sokolov
"A Spectroscopically Studied State of Gases Following the Ionization Wave"
- h. N. N. Kuzin, Ye. S. Sokolov, N. V. Troshchinskaya
"Molecular Hydrogen Ionization by Gas Hydrogen Atoms"
- i. I. P. Kozlov, G. N. Churakov
"Ionization of Gases Induced by Multi-charged Ions"
- j. P. N. Yakovlev, I. N. Polyakov
"The Source for Molecular Hydrogen Ion Ionization at the Cathode"
- k. A. I. Troshchinskaya, V. V. Kuznetsov, N. P. Malakhov, N. N. Troshchinskaya
"Injection of an Ion Beam into the Cathode Region"
- l. Ye. Yakovlev
"On Directed Ionization of Particles from a Copper Single Crystal Sprayed by Bombardment with Ions"

ACC NRAP7005667

cylindrical shell of the chamber. This piston, which changes the length of the chamber gas cavity, may be, for example, hydraulically driven (see Fig. 1). Orig. art. has: 1 figure. [TN]

SUB CODE: 21/ SUBM DATE: 01 Dec 65/ ATD PRESS: 5117

Card 3/3

ACC NR: AP7005667

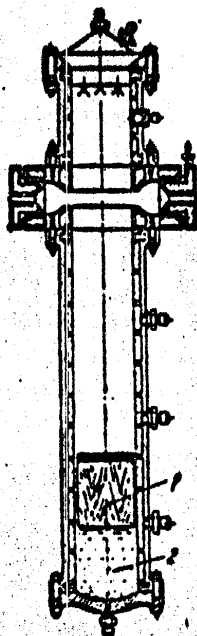


Fig. 1. Experimental chamber

1 - Piston; 2 - liquid.

Card 2/3

ACC NR: AP7005667

SOURCE CODE: UR/0413/67/000/002/0138/0138

INVENTOR: Abugov, D. I.; Bazarov, V. G.; Ganovskiy, G. A.; Malakhov, N. N.

ORG: none

TITLE: Experimental combustion chamber for a liquid rocket engine.
Class 46, No. 190728

SOURCE: Izobretoniya, promyshlennyye obraztsy, tovarnyye znaki, no. 2, 1967, 138

TOPIC TAGS: combustion chamber, combustion chamber test, liquid propellant engine, ~~liquid propellant engine~~

ABSTRACT: The proposed experimental combustion chamber contains a cylindrical shell, a replaceable injector, and a nozzle unit with replaceable exhaust nozzles. In order to vary the natural frequency of the gas oscillations smoothly and to obtain the amplitude-frequency characteristic during a single firing of the engine, a movable piston is mounted in the

Card 1/3

UDC: 621.455

BELYKH, D.P., kand. ist. nauk; VALYULIS, I.A.; GOTSKIY, M.V., kapitan dal'nego plavaniya [deceased]; D'YACHUK, I.L., kapitan dal'nego plavaniya; KALMYKOV, F.A., kapitan dal'nego plavaniya; KREMS, A.K., kapitan dal'nego plavaniya; KOLOTOV, N.A., dots.; PETRENKO, S.A.; RASKATOV, A.S.; FISHER, Ye.L.; DVORNAYK, B.M., otv. red.; LEVITSKIY, V.L., red.; LYUTIKOV, V.K.; MALAKHOV, N.N., red.; POL', P.A., red.; RASKATOV, A.S., red.; CHICHVARKHIN, V.S., red.; RADOSTIN, V.A., red.; LAVRENOVA, N.B., tekhn. red.

[History of Far Eastern Steamship Lines] Istorii dal'nevostochnogo parokhodstva; ocherki. Moskva, Izd-vo "Morskoi transport," 1962. 263 p. (MIRA15:11)
(Soviet Far East--Merchant marine)

MALAKHOV, N.L.; KAGRAMANYAN, E.A.; MAI'KO, N.S.

Improving the quality of commercial-grade limonite of the
Krivoy Rog Basin. Gor. zhur. no.9:56-57 S '64.

(MIRA 17:12)

1. Rudoupravleniye "Ingulets", Krivoy Rog.

NATAROV, V.D.; MALAKHOV, N.L.

Manganese ores in the Krivoy Rog Basin. Razved. 1 okh. nedr. 27 no. 3:
4-6 Mr '61. (MIRA 14:5)

1. Nauchno-issledovatel'skiy gornorudnyy institut (for Natarov).
2. Rudnik Ingulets, Krivorozhskiy zhelezorudnyy basseyn (for Malakhov).
(Krivoy Rog Basin--Manganese ores)

1. MALAKHOV, N. L., Geol.
2. USSR (600)
4. Mine Drainage
7. Drip-measuring instrument. Gor zhur No 12 1952.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

MALAKHOV, N.I.; GNILOVSKIY, V.G., kand.geograf.nauk; VOLODKEVICH, I.I.
starshiy nauchnyy sotrudnik [deceased]; SEREDIN, R.M., dotsent,
kand.biolog.nauk; VISHNEVSKIY, A.S., doktor med.nauk; SKRIPCHINSKIY,
V.V., dotsent; GALUSHKO, A.I.; KHARCHENKO, L.I., red.; STEBLYANKO,
T.V., tekhn.red.

[Caucasian Mineral Waters] Kavkazskie Mineral'nye Vody; putevoditel'.
Izd.5., perer. i dop. Stavropol', Stavropol'skoe knizhnoe izd-vo,
1960. 339 p. (MIRA 13:11)

1. Bal'neologicheskiy institut na Kavminvodakh (for Volodkevich).
(CAUCASUS--MINERAL WATERS)

MALAKHOV, Nikolay Dmitriyevich; POVEROV, Konstantin Iosifovich;
YATSENKO, Valentin Semenovich; TUMM, I.D., retsenzent;
SAMOYLOVICH, T.A., red.

[Operation of marine power plants] Tekhnicheskaya eks-
pluatatsiya sudovykh silovykh ustanovok. Moskva, Trans-
port, 1964. 346 p. (MIRA 17:12)

VOZNITSKIY, Igor' Vital'evich; IVANOV, Lev Andrianovich. Primal
uchastie CHUKHRIN, L.A.; MEGRABOV, G.A., dots., retsenzent;
MALAKHOV, N.D., mekhanik-nastavnik Dal'nevostochnogo pa-
rokhodstva, retsenzent; NELIDOVA, E.S., red.; LAVRIENOVA, N.B.,
tekh. red.

[Breakdown of internal combustion marine engines] Avarii sudo-
vykh dvigatelei vnutrennego sgoraniia. Moskva, Izd-vo
"Morskoi transport," 1961. 240 p. (MIRA 15:2)
(Marine engines--Maintenance and repair)

GASILOV, R.G., inzh.; KARPOV, N.A., kand.tekhn.nauk; MALAKHOV, N.A., kand.
tekhn.nauk

Motor-driven hydraulic track liner. Put' i put.khoz. 9 no.5:21-22
'65. (MIRA 18:5)

ACC NR: AN7006284

SOURCE CODE: UR/9022/67/000/034/0004/0004

AUTHOR: Malakhov, N.

ORG: none

TITLE: Computer research and instruction

SOURCE: Sovetskaya Rossiya, no. 34, 9 Feb 67, p. 4, col. 1-2

TOPIC TAGS: computer programming, computer research

ABSTRACT:

At L'vov, in the laboratory for programmed-education equipment of the Polytechnic Institute, the Al'fa-5 electronic computer has been developed. At first, it could be used to test students; however, it can now train students and even help them check their knowledge. It can ask up to 14 questions; after having obtained the answer to the last question, it evaluates it. If the answer is correct, a new text is given. If not, it explains the problem and only then offers a new text. It will be exhibited in Montreal.

[NC]

SUB CODE: 09/ SUBM DATE: none/ ATD PRESS: 5115

Card 1/1

UDC: none

MAIAKHOV, M.Ya., inzh.; TISLENKO, Yu.T., inzh.

Automatic temperature control in cementation furnaces. Mekh.
i avtom. proizvod. 19 no. 10:7-8 0 '65. (MIRA 18:12)

MALAKHOV, M.P.

Mechanizing the assembly of the three-layer veneer bundles for
gluing. Der. prom. 14 no.4:6 Ap '65. (MIRA 18:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut derevoobrabatyvayushchey promyshlennosti.

MALAKHOV, M.P., inzh.

Using special thread gauges in manufacturing zinc plated fastenings. Khim.mashinostr. no.3:40-41 My-Je '63. (MIRA 16:11)

MALAKHOV, M.M., inzh.

Ensuring the electric power supply to rural consumers. Mekh.sil'.
hosp. 13 no.12:16-17 D '62. (MIRA 16:2)
(Ukraine--Rural electrification)

MALAKHOV, M.M., inzh.

Automation of rural substations and electric networks. Mekh.
sil'. hosp 12 no.11:21-22 N '61. (MIRA 14:11)
(Rural electrification)

MALAKHOV, M.I.

Securing the screwing of zinc plated parts by thread gauges.
Izm.tekh. no.12:11 D '62. (MIRA 15:12)
(Screws)

MALAKHOV, M.I.

Device for measuring taper gauges. Izv.tekh. no.1:16-17 Ja
'60. (MIRA 13:5)

(Gauges---Measurement)

SOV/115-59-9-30/37

The Rights and the Duties of Plant Measuring Laboratories Must be Expanded

trol section, the employees of the measuring laboratory are used for eliminating bottlenecks in checking the quality of the products during the absence of the regular checkers. For example, the author, who is supervisor of the measuring laboratory, must perform acceptance tests of models, products, etc, while he actually could spend this time for research on new measuring instruments or new test methods. The author complains that there is little cooperation between his laboratory and the Tambov State Control Laboratory for Measuring Instruments. The representatives of this agency come to the plant only for inspections. The inspectors could provide valuable advice. There is 1 Soviet reference.

Card 3/3

SOV/115-59-9-30/37

The Rights and the Duties of Plant Measuring Laboratories Must Be Expanded

for Measuring Instruments) the authorization to test independently the majority of universal measuring instruments without a re-checking by the state control laboratories. This results in an annual saving of 10,000 rubles. The employees of the measuring laboratory check periodically the technological equipment of the plant. They participate in introducing new test methods. For example, the helium leak finder PTI-4A was mastered by the laboratory employees. A bottleneck occurred in testing vacuum and freon devices. The plant manufactured special devices which were tested in Moscow, since test equipment was not available. The employees of the measuring instrument laboratory assist in reducing the number of rejects in the production. K.N. Katsman is also right in demanding that the measuring instrument laboratories should be operated under the chief engineer of the plant and not under the quality control section. While attached to the quality con-

Card 2/3

28(2)
AUTHOR:

Malakhov, M.I.

SOV/115-59-9-30/37

TITLE:

The Rights and the Duties of Plant Measuring Laboratories Must Be Expanded

PERIODICAL:

Izmeritel'naya tekhnika, 1959, Nr 9, pp 55-56 (USSR)

ABSTRACT:

The author refers to an article of K.N. Katsman, published in "Izmeritel'naya tekhnika" 1959, Nr 4. He agrees with K.N. Katsman's statements, saying that the measuring instrument laboratories at industrial installations should not merely test the various measuring instruments existing at a plant, but they should also work actively on the development of new measuring devices and methods. He reports on the experience made in this field at the Tambov "Komsomlets" plant, where the measuring instrument laboratory was merged with the mechanical laboratory to one unit. The employees of the measuring instrument laboratory had received long ago from the Tambovskaya gosudarstvennaya kontrol'naya laboratoriya po izmeritel'noy tekhnike (Tambov State Control Laboratory

Card 1/3

AUTHOR: Malakhov, M.I. SOV/115-58-6-17/43

TITLE: Device for Testing the Springs in the Hardness Meter TK
(Prisposobleniye dlya ispytaniya pruzhin na tverdomere TK)

PERIODICAL: Izmeritel'naya tekhnika, 1958, Nr 6, pp 38-39 (USSR)

ABSTRACT: At the Tambovskiy zavod "Komsomolets" (Tambov Plant "Komsomolets") a device has been developed which permits the use of the hardness meter TK for testing springs (see Figure). A dynamometer is installed on the table of the lifting screw. The spring is put on the table and compressed by a flywheel and the lifting screw. The load lever of the hardness meter TK then rises and the indicator (11) goes down. Weights are added until the indicator reaches its zero position. The residual deformation of the spring can be checked in the same way. The springs can be tested in the stress interval from 10-150 kg and with a length of 150 mm. There is 1 diagram.

ASSOCIATION: Tambovskiy zavod "Komsomolets" (Tambov Plant "Komsomolets")

Card 1/1

MAIAKHOV, M.I.

Instrument for checking profile angles of thread gauges. Izv. tekhn.
no. 2:14 Mr-Ap '58. (MIRA 11:3)
(Measuring instruments)

MALAKHOV, M.I.

Attachment for lapping micrometer faces. Ism.tekh. no.4:68-69
J1-Ag '56. (MLRA 9:11)
(Micrometer--Repairing)

MALAKHOV, M. I.

Stakhanovite methods of work in the V. V. Kuibyshev Machine Construction Plant in Kolomna. Sost. gruppoi inzhenerov pod rukovodstvom M. I. Malakhova. Moskva, 1939
104 p. (50-40952 Rev)

Vsevoiuuznoe nauchno-tekhnicheskoe obshchestvo mashinostroitelei. Stakhanovskie metody...
1939. (Card 2, 50-40952 Rev)

TJ683.V8

MALAKHOV, M.A., inzh.

Regulations for building multistoried apartment houses.

Stroi. prom. 27 no.5:4-6 My '59.

(MIRA 13:2)

(Apartment houses)

MASENKO, I.D., inzhener; MALAKHOV, M.A., inzhener.

Transportation of wall building materials without containers. Sbor.mat.
o nov. tekhn. v stroi. 15 no.6:1-6 '53. (MLBA 6:5)
(Building materials--Transportation)

MALAKHOV, M. A., Eng.

Building

Erecting a ten-grade school by high-speed assembly-line methods. Sbor. mat. o
nov. tekhn. v stroi. 15, No. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

MALAKHOV, M.A., inzh.

Compulsory technical specifications for building apartment
houses of few stories using assembly-line methods. Stroi.
prom. 27 no.2:9-12 F '49. (MIRA 13:2)
(Assembly-line methods) (Apartment houses)

MALAKHOV, M. A.

MALAKHOV, M. A. "Technical regulations for the construction of multi-story dwelling houses", *Stroit. prom-st'*, 1949, No. 5, p. 4-6.

SO: U-4393, 19 August 53, (*Letopis 'Zhurnal 'nykh Statey'*, No. 22, 1949).

SOV/20-125-2-19/64

An Electron-optical Method for the Investigation of Microfields

the object in the direction which is perpendicular to this edge is proportional to the electric field at this point. A formula for this shift is written down. Shifting in a direction parallel to the edge of the object is, like in the case of a perpendicular shift, proportional to the variation Δf of the focal distance of the lens, but it is of a more complicated character. These shifts can be avoided by using a lens with adjustable axial astigmatism. Such tests were carried out on an electronic microscope with adjustable stigmator, in which case an extended p-n-transition with a germanium monocrystal was used as experimental object. The results obtained by this experiment are illustrated by 3 figures. The results obtained by the present investigation are well confirmed by measurements carried out by the condenser method.

There are 2 figures.

ASSOCIATION: Fizicheskiy institut im P.N. Lebedeva Akademii nauk SSSR
(Physics Institute imeni P.N. Lebedev of the Academy of Sciences USSR)

PRESENTED: December 7, 1958, by A.A. Lebedev, Academician
SUBMITTED: November 26, 1958.

Card 2/2

9(6)

SOV/20-125-2-19/64

AUTHORS: Malakhov, L.N., Vorob'yev, Yu.V.

TITLE: An Electron-optical Method for the Investigation of Microfields
(Elektronno-opticheskiy metod issledovaniya mikropoley)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol, Nr 2, pp 315 - 316 (USSR)

ABSTRACT: The present paper deals with an electron-optical method for the investigation and measurement of the potential distribution in the microranges on the surface of a semiconductor. For this purpose, the wedge-shaped test object is produced in such a manner that its conductivity varies along the edge. This test object is then fixed in the object-plane of the lens, where it is irradiated by means of a parallel electron beam. The image of the edge of the object is then observed on a screen. When a voltage is applied to the object, the electric field distorts the electron orbits, but because the object is located on the object-plane of the lens, its image on the screen remains unchanged. If, while the lens and the screen remain in the same position, the focal distance of the lens is altered, the image of the object is shifted on the screen after a voltage is applied, and its shape is distorted according to the deflection angles of the electrons in the field of the object. This deflection takes place parallel and perpendicular to the edge of the wedge. Shifting of the edge of

Card 1/2

The Use of Shadow-electronoptical Methods in the
Investigation of p - n-Transitions in Germanium

SOV/48-23-6-25/28

perpendicular to the optical axis. From the displacement of the net located in the focal plane of the objective, conclusions are drawn as to the voltage distribution on the edge of the crystal, and as positive and negative voltages are applied to the electrodes of the crystal, "zero" of the voltage becomes visible (Fig 2). The dependence of the width of the p - n-transition of Ge on the applied voltage becomes clearly visible. The authors finally thank Academician A. A. Lebedev for his valuable advice and discussions. There are 2 figures and 4 references, 3 of which are Soviet.

AUTHORS: Malakhov, L. N., Vertsner, V. N., SOV/48-23-6-25/28
Lebedev, A. A.

TITLE: The Use of Shadow-electronoptical Methods in the Investigation of p - n-Transitions in Germanium (Primeneniye tenevogo elektronnoopticheskogo metoda k issledovaniyu germaniyevykh p - n-perekhodov)

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 6, pp 770-772 (USSR)

ABSTRACT: Vavilov was the first to use this method for investigations of semiconductors (Ref 2), and reference is made in the introduction to the results obtained by the investigation described in p 765 of this issue, where formula (1) was deduced for the displacement. Further, several data are given for the experimental unit: accelerating voltage 50 kv, 200 to 300-fold enlargement, and a resolving power of up to from 0.1 to 0.2 μ . The investigations were carried out on ground and polished germanium monocrystals, and a scheme of the experimental unit (Fig 1) is shown. The optical axis of the instrument touches the edge of a germanium crystal, the electrons in the crystal move in a direction that is

Card 1/2

The Exactness of the Transmission of the SOV/48-23-6-24/28
Distribution of the Potential in Shadow-electron-optical Methods

(4) and (5) are deduced for the distribution of the potential, and the result obtained is shown by two diagrams (Figs 3, 5). Finally, the exactness of this method is investigated and the conditions are given at which the distribution of the potential on the object can be determined. There are 6 figures and 3 references.

Card 2/2

AUTHORS: Malakhov, L. N., Vorob'yev, Yu. V. SOV/48-23-6-24/28

TITLE: The Exactness of the Transmission of the Distribution of the Potential in Shadow-electron-optical Methods (Tochnost' peredachi raspredeleniya potentsiala tenevym elektronnoopticheskim metodom)

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 6, pp 765-769 (USSR)

ABSTRACT: In the shadow-electron-optical method of investigating electromagnetic fields in the neighborhood and on the surface of objects, the shadow image of a net is used, which is located in the focal plane of the object. A problem to be solved is the explanation of the results found and the determination of the field from the displacement of the shadow image of the net. In the first part of the paper the connection between the diffraction of the electrons in the field of the object and the displacement of the shadow image of the net is investigated. A scheme (Fig 1) is used as a basis for this purpose, and a formula (1) is deduced for the displacement. In the second part of the paper the determination of the electric field near the object is discussed. Two formulas

Card 1/2

20-2-16/60

The Use of Electron Microscope Shadow Method for Studying the Potential
Distribution in p-n-Transitions

PRESENTED: July 31, 1957, by A. A. Lebedev, Academician

SUBMITTED: July 26, 1957

AVAILABLE: Library of Congress

Card 3/3

20-2-16/60

The Use of Electron Microscope Shadow Method for Studying the Potential Distribution in p-n-Transitions

"net of coordinates" as indicator for the electric field. The use of an accelerating voltage of 50 000 V made it possible to observe the objects in test with a sufficient resolution of $\sim 0,1 \mu$. The sensitivity for electric fields is guaranteed by the clear definition of the shadow image of the "net of coordinates". In spite of having used fast electrons, a potential of 0,3 V was found. To increase the accuracy of differences in the shift of the grid-system, the authors used the method of the "differential exposures". In this occasion on the same photographic plate the shadow images of the distorted and of the undistorted net-system were taken. This method increased the accuracy of the differences and shortened the time of exposure. Here p-n-transitions were examined in the case of germanium monocrystals. A typical image of a p-n-transition which has been got by means of the method, described here, will be added. The authors hope to be able to study the physical processes in the case of the rupture in p-n-transitions more exactly by this method. There are 3 figures, and 4 references, 3 of which are Slavic.

Card 2/3

Malakhov, L.N.

20-2-16/60

AUTHORS: Vertsner, V. N. , Malakhov, L. N.

TITLE: The Use of Electron Microscope Shadow Method for Studying the Potential Distribution in p-n-Transitions (Primeneniye tenevoy elektronno-mikroskopicheskoy metodiki k izucheniyu raspredeleniya potentsiala v p-n- perekhodakh)

PERIODICAL: Doklady AN SSSR, 1958, Vol. 118, Nr 2, pp. 266 - 268 (USSR)

ABSTRACT: The striae-method (svilevaya metodika) can be transferred to electron optics, if there are local electric and magnetic inhomogeneities. For this reason micro-inhomogeneities in the distribution of electric or magnetic fields can be found by the striae-method. To ascertain quantitative data about the distribution of such fields, the electron optical shadow method has been worked out, its principle is illustrated by a figure. This electron-optical methods first was used only for semiconductors. The present work uses this method for observation of the zone of decrease of the potential in p-n-transitions of germanium. The electron optical device was realized by using a

Card 1/3

51-6-16/25
Application of an Electron-Optical Method to the Study of Micro-Distribution of Electric Fields.

valuable advice. There are 5 figures and 3 references, of which 2 are Russian and 1 English.

SUBMITTED: April 1, 1957.

AVAILABLE: Library of Congress.

Card 5/5

51-6-16/25
Application of an Electron-Optical Method to the Study of Micro-Distribution of Electric Fields.

applied to the object, then electrons which form the image of the object edge are deflected. A lens L_3 magnifies the image. Fig.5 shows a layer of lead sulphide deposited on a glass prism with a sharp edge. One of the ends of the sample was grounded and a voltage was applied at the other end of the sample. A grounded wire was placed parallel to the edge of the sample so that between each point on the sample edge and wire there was a potential difference which decreased gradually towards the grounded end of the PbS sample. Fig.5 shows that the displacement between the two shadow images of the sample edge gradually decreases following a potential distribution along the sample. The electron-optical method of study of electric fields described in this paper gives the potential distribution on the semiconductor surface only. For PbS it is not permissible to take surface conditions as representing conditions in the bulk of the sample. The authors thank Academician A. A. Lebedev for suggesting the subject and for

Card 4/5

Application of an Electron-Optical Method to the Study of Micro-
Distribution of Electric Fields. 51-6-16/25

such conditions fields of the order of 0.2-0.3 V could be detected. Fig.2 shows the displacement of the coordinate grid image in the region of a p-n junction of a In-Ge sample with 18 V applied in the blocking direction (magnification 2000). Fig.2 shows that the coordinate grid displacements are greatest in the region of the junction itself. The junction was found to be about 17 μ wide (Fig.3). Similar studies of Cu₂O rectifiers showed that their p-n junction is only 2.5-3 μ wide (Fig.3) when 6.7 V are applied to it. Magnitude of distribution of electric fields on the surfaces of polycrystalline semiconductors was studied by measuring displacement of the shadow image of the semiconductor itself. A resolution of 0.2 μ was obtained, and minimum measurable potential was 0.2 V. The apparatus used is shown in Fig.4. A point source O produces a shadow image of the object AS. If a voltage is

Card 3/5

51-6-16/25

Application of an Electron-Optical Method to the Study of Micro-Distribution of Electric Fields.

is incident on a lens L and, in the absence of perturbing electrical or magnetic fields on the object S' , produces a shadow image of an obstruction ED placed beyond the focus of the lens L . A thin wire may serve as an obstruction ED . If there is a voltage across the sample S' , then the electron beam is deflected, i.e. a displacement of the shadow image of ED is observed on the screen. The magnitude of this displacement is a measure of the perturbing field on S' . Actually, instead of a wire a metal grid (screen) was used. The microscope had long-focus objectives and electrons of comparatively low velocities were used. Two variants of the method were used: (1) a coordinate grid was used as an indicator of the magnitude of the field, and (2) displacement of the image of the object itself due to the presence of the field was employed. Resolution for 50 kV electrons was 0.1μ . The electron source was only $1-2 \mu$ in height, which made it possible to use magnifications of 200-300. Under

Card 2/5

Malakhov, L. N.

51-6-16/25

AUTHORS: Vertsner, V. N., and Malakhov, L. N.

TITLE: Application of an Electron-Optical Method to the Study of Micro-Distribution of Electric Fields.
(Primeneniye elektronnoopticheskogo metoda k izucheniyu mikroraspredeleniya elektricheskikh poley.)

PERIODICAL: Optika i Spektroskopiya, 1957, Vol. III, Nr. 6, pp. 649-652. (USSR)

ABSTRACT: The present paper described methods for study of micro-distribution of potential on semiconductors by means of shadow electromicrographs. This method was first proposed in 1949 (Ref.1). It was applied by Vavilov (Ref.2) to the study of drift of photo-current carriers in lead sulphide photo-resistances. It is possible to observe local electrical or magnetic fields in a sample because electrons which form the image of the sample interact with such fields and their trajectories are altered. The principle of the method is shown in Fig.1. A parallel beam of electrons

Card 1/5

CA MALAKHOV L.N.

Electronic Phenomena
3

Effect of oxygen on the conductivity and photoconductivity of lead sulfide photoresistors. S. M. Ryvkin and L. N. Malakhov (Leningrad Phys.-Tech. Inst.). *Doklady Akad. Nauk S.S.S.R.* 25, 785-8 (1952).—Controlled amts. of "reversible," i.e. weakly bound, O(I) were introduced into PbS by way of satn. at room temp. and partial outgassing in vacuo at a somewhat higher temp. T (32.5, 40, 48°) for a definite length of time t , and reverting to room temp. where the I content, attained at the higher T , remained practically unchanged; at any given T , a longer t means lower I content in the PbS. The stationary photocond. $\Delta\sigma_s = e\mu n h I$ (where μ = mobility of the carriers of the photocurrent, τ = their mean life, β = quantum efficiency, h = absorption coeff., I = intensity of light in no. of quanta) and τ were measured as functions of t , taken as a measure of the I content. The 2 curves are very nearly identical, both $\Delta\sigma_s$ and τ falling in the same manner with increasing t . This correlation proves that, of the magnitudes detg. $\Delta\sigma_s$, only τ depends on the content of I, and that neither β nor μ is affected by it. It therefore would appear that the O

atoms in PbS do not play the role of centers of an impurity photoeffect. It could be expected that the I content should have the same effect on μ and on the mobility μ_d of the carriers of the dark current, and, since it was found to have no effect on μ , it should have none on μ_d either. This conclusion was tested by measurements of the dark cond. $\sigma_d = e\mu_d n_d$ (where n_d = concn. of the carriers in the dark) and of the Hall const. R , giving μ_d . It developed that, while μ_d is practically independent of the I content, $\sigma_d = R\sigma_s$ falls with increasing t (decreasing I) in the same manner as σ_s itself. The conflict between this result and the prediction can be settled by assuming, with Hahn (C.A. 46, 1321b) that in polycryst. PbS, R is detd. mainly by the well-conducting PbS crystallites, whereas σ_d depends on the poorly conducting intercryst. layers. If so, μ_d is not equal to $R\sigma_s$, and, further, I is localized in the intercryst. layers and does not penetrate into the crystallites. Inasmuch as $\Delta\sigma_s$ varies with the I content in the same manner as σ_d , it follows that the photocond. also depends on the intercryst. matter. N. Thon

VODOLATSKIY, M.P.; MALAKHOV, L.I.

Effect of surgical intervention in the maxillofacial region
on the state of protein fractions and changes in the stability
of the colloids of blood serum. Trudy 1-go MMI 44:156-160 '65.
(MIRA 18:12)

1. Iz kafedry khirurgicheskoy stomatologii (zav.- dotsent M.M.
Slutskaya) Stavropol'skogo gosudarstvennogo meditsinskogo instituta
(rektor - dotsent V.Yu. Pervushin).

VODOLATSKIY, M.P.; MALAKHOV, L.I.

Tuberculous lesion of the mucous oral cavity. Trudy 1-go MMI
44:141-144 '65. (MIRA 18:12)

1. Iz kafedry khirurgicheskoy stomatologii (zav.- dotsent M.M.
Slutskaya) Stavropol'skogo gosudarstvennogo meditsinskogo instituta
'rektor - dotsent Yu.V. Pervushin) i Krasnoy klinicheskoy bol'nitsy
(glavnyy vrach - A.S. Reshetova).

The action of ...

S/844/62/000/000/040/123
D214/D307

$10^2 - 2.5 \times 10^4$ rad and a 5×10^{-5} M solution of phenyl red (pH 1), in the range of $10^4 - 10^5$ rad. Strongest decolorization was obtained in the presence of H_2SO_4 and the weakest with CH_3COOH . Changes in pH ($0.005 - 1$ M H^+) did not affect the yield. Glucose (strong OH acceptor) reduced the yields, whilst NO_3^- (H acceptor) increased them. Total decolorization of methyl orange was not obtained and reduction experiments with powdered Fe indicated the presence of an azoxy-derivative. The proportionality of the optical density of solutions and the absorbed energy, the constancy of the decolorization yields in wide dose ranges and the stability of the colors make these solutions valuable in dosimetry. There are 2 figures and 1 table.

Card 2/2

S/844/62/000/000/040/129
D214/D307

AUTHORS: Malakhov, K. V., Cheburkov, O. F. and Kabakchi, A. M.

TITLE: The action of γ radiation on dilute aqueous solutions of dyes

SOURCE: Trudy II Vsesoyuznogo soveshchaniya po radiatsionnoy khimii. Ed. L. S. Polak. Moscow, Izd-vo AN SSSR, 1962, 243-246

TEXT: The action of γ rays (Co^{60} source) on aqueous solutions of methyl orange and phenyl red was studied. This radiation caused an irreversible decolorization of these solutions. The color, before or after the irradiation, was stable to daylight and to air. Optical density of the dye solutions was proportional to the absorbed energy and all results were obtained by measuring the former. A 5×10^{-6} M solution of methyl orange, at pH 2, gave a constant decolorization yield in dose range $10 - 1.5 \times 10^3$ rad; a 5×10^{-5} M solution, under the same conditions, gave constant yields in the dose range of $8 \times$

Card 1/2

Influence of the variation ...

S/844/62/000/000/025/129
D244/D307

of irradiation did not differ markedly from each other. It is indicated that the formation of NO_2^- in concentrated NaNO_3 solutions depends on: 1) interaction of the dissolved material with the products of radiolysis of water, 2) participation of the excited solvent molecules in the reaction according to equations $\text{H}_2\text{O}^* + \text{NO}_3^- \rightarrow \text{NO}_3^* + \text{H}_2\text{O}$; $(\text{NO}_3^-)^* + \text{H}_2\text{O} \rightarrow \text{NO}_2^- + \text{H}_2\text{O}_2$ and 3) direct action of the radiation on the system. There is 1 table.

Card 2/2

S/844/62/000/000/025/129
D244/D307

AUTHORS: Cheburkov, O. F., Malakhov, K. V., Gramolin, V. A. and Kabakchi, A. M.

TITLE: Influence of the variation of the quantity $\frac{dE}{dx}$ on the yield of nitrate ion on aqueous nitrate solutions

SOURCE: Trudy II Vsesoyuznogo soveshchaniya po radiatsionnoy khimii. Ed. by M. S. Polak. Moscow, Izd-vo AN SSSR, 1962, 159-161

TEXT: The authors investigated the effect of decreasing $\frac{dE}{dx}$ of the applied radiation on the yield of nitrite in nitrate solutions. Solutions containing 0.01 - 6.0 g - ets/1 NaNO_3 and Griss reagent were irradiated by γ rays from a Co^{60} source, 14.1 Mev neutrons and α -particles from Pu^{239} . It was established that in dilute solutions of NaNO_3 (0.01 M) the yield of NO_2^- depends strongly on quantity $\frac{dE}{dx}$. In 0.1 and 1.0 M solutions the yields for the various methods

Card 1/2

MALAKHOV, K.N.

Cars should be loaded to their full capacity. Zhel.dor.transp. 47
no.4:13-16 Ap '65. (MIRA 18:6)

1. Zamestitel' nachal'nika Glavnogo gruzovogo upravleniya
Ministerstva putey soobshcheniya.

MALAKHOV, K.N.; NAUMOV, P.Ye.

Improving the planning of freight transportation. Zhel. dor. transp.
46 no.9:10-12 S '64.

1. Zamestitel' nachal'nika Glavnogo gruzovogo upravleniya Ministerstva
putey soobshcheniya (for Malakhov). 2. Zamestitel' nachal'nika upravleniya
planirovaniya perevozok Ministerstva putey soobshcheniya (for Naumov).

KIMSTACH, Aleksandr Karlovich; IVANITSKIY, Nikolay Mikhaylovich;
IVANOV, Anatoliy Semenovich; MALAKHOV, K.N., red.

[Transportation service in agriculture; practices in using
the Northern Caucasus Railroad] Transportnoe obsluzhivanie
sel'skogo khoziaistva; opyt Severo-Kavkazskoi zheleznoi
dorogi. Moskva, Transport, 1964. 190 p.

(MIRA 17:12)

MALAKHOV, K.N.

Some problems in the organization of the transportation of mineral fertilizers. Zhel.-dor.transp. 45 no.12:7-11 D '63. (MIRA 17:2)

1. Zamestitel' nachal'nika Glavnogo gruzovogo upravleniya Ministerstva putey soobshvheniya.

BESHKETO, V.K.; KOZLOVSKIY, M.G.; KUPRIN, V.A.; FLEYSHMAN, V.A.;
MALAKHOV, K.N., inzh., retsenzent; POTAPOV, V.P., inzh.,
red.; VOROB'YEVA, L.V., tekhn. red.

[Transportation service for industrial enterprises; from
the experience of the West Siberian Railroad] Transportnoe
obslyuzhivanie promyshlennykh predpriatii; iz opyta Zapadno-
Sibirskoi zheleznnoi dorogi. Moskva, Transport, 1964. 86 p.
(MIRA 17:1)

GUBKOV, Vladimir Vladimirovich; MALAKHOV, Konstantin Nikolayevich;
DEREAS, A.T., inzh., retsenzent; KATOLICHENKO, V.A., inzh.,
retsenzent; TSARENKO, A.P., inzh., red.; WOROTNIKOVA, L.F.,
tekh. red.

[Mechanization of loading and unloading operations on foreign
railroads] Mekhanizatsiia pogruzochno-rasgruzochnykh rabot na
zarubezhnykh zheleznnykh dorogakh. Moskva, Transzheldorizdat,
1963. 227 p. (MIRA 16:4)

(Materials handling--Equipment and supplies)

(Automation) (Railroads--Freight)

RUBINSHTEYN, B.I.; MALAKHOV, K.N., inzh., retsenzent; SHISHLYKOV,
Ye.S., inzh., red.; DROZDOVA, N.D., tekhn. red.

[Grain transportation; from the practices of the Kustanay
Section of the Kazakh Railroad] Opyt perevozok zerna; iz
praktiki Kustanaiskogo otdeleniia Kazakhskoi dorogi. Mo-
skva, 1963. 38 p. (MIRA 16:8)
(Kazakhstan--Grain--Transportation)

POTAPOV, V.N.; MATALASOV, S.F., kand.tekhn.nauk; MALAKHOV, K.N.

New design requirements for freight cars. Zhel.dor.transp.
44 no.8:28-32 Ag '62. (MIRA 15:8)

1. Nachal'nik Glavnogo gruzovogo upravleniya Ministerstva putey
soobshcheniya (for Potapov). 2. Glavnyy inzh. Glavnogo gruzovogo
upravleniya Ministerstva putey soobshcheniya (for Malakhov).
(Railroads--Freight cars--Design and construction)

MALAKHOV, K.N.; MATAIASOV, S.F.

Practices of freight and commercial operations on the railroads
of Czechoslovakia. Zhel.dor.transp. 44 no.1:85-89 Ja '62.
(MIRA 14:12)

1. Glavnyy inzhener Glavnogo gruzovogo upravleniya Ministerstva
putey soobshcheniya (for Malakhov). 2. Rukovoditel' sektora
otdeleniya gruzovoy raboty Vsesoyuznogo nauchno-issledovatel'skogo
instituta zheleznodorozhenogo transporta Ministerstva
putey soobshcheniya (for Mataiasov).

(Czechoslovakia--Railroads--Freight)

MAKARENKO, P.G., inzh.; SHAPOVALENKO, M.M., inzh.; MARTYNOV, M.S., inzh.,
retsenzent; MALAKHOV, K.N., inzh., retsenzent; PETROVA, V.L.,
inzh., red.; BOBROVA, Ye.N., tekhn.red.

[Transportation of perishable goods and efficiency of various types
of isothermal railroad cars] Voprosy perevozok skoroprotiashchikhsia
gruzov i effektivnost' razlichnykh tipov izotermicheskikh
vagonov. Moskva, Vses. izdatel'sko-poligr. ob"edinenie M-va
putei soobshcheniia, 1962. 82 p. (Moscow. Vsesoiuznyi
nauchno-issledovatel'skii institut zheleznodorozhnogo transporta.
Trudy, no.234). (MIRA 15:8)

(Refrigerator cars)

VISHNEVSKIY, Isaak Davidovich; LABUT, Andrey Aleksandrovich; LEMESHCHUK, Petr Kondrat'yevich; CHERKES, Mikhail Yur'yevich; MALAKHOV, K.N., inzh., retsenzent; PREDE, V.Yu., inzh., red.; VOROTNIKOVA, L.F., tekhn. red.

[Industrial transportation sections and railroad stations]Transportnyi tsekh i stantsia. Moskva, Transzheldorizdat, 1962.
58 p. (MIRA 15:11)
(Railroads, Industrial) (Railroads--Freight)

MALAKHOV, K.N., inzh.; SHCHEDURSKIY, S.F., inzh.

Penalties or tariff rates? Zhel.-dor.transp. 43 no.9:39-42
S '61. (MIRA 14:8)

(Demurrage (Car service))
(Railroads--Rates)

MALAKHOV, K.N.; SHEDURSKIY, S.F., inzh.; YANKIN, S.M., inzh.

Problem calling for immediate solution. Zhel. dor. transp. 43
no. 1:71-73 Ja '61. (MIRA 14:4)

1. Glavnyy inzhener Glavnogo gruzovogo upravleniya Ministerstva putey soobshcheniya (for Malakhov). 2. Nachal'nik otдела pod"yezdnykh putey Glavnogo gruzovogo upravleniya. Ministerstva putey soobshcheniya (for Yankin).
(Railroads--Rolling stock) (Railroads--Branch lines)

IL'IN, K.P., kand.tekhn.nauk; PLADIS, F.A., inzh.; ROSTOVSKAYA, Ye.P., inzh.;
VOVCHENKO, P.I., inzh.; Prinimali uchastiye: GORBENKO, L.G., inzh.;
SHESTAKOV, Yu.K., inzh.; LABADIN, S.I., inzh., retsenzent;
MALAKHOV, K.N., inzh., retsenzent; PETROVA, V.L., inzh., red.;
BOBROVA, Ye.N., tekhn.red

[Methods of determining freight weight] Sposoby opredeleniia
vesa ~~gruzov~~. Moskva, Vses.izdatel'skopoligr.ob"edinenie N-va
putei soob., 1961. 117 p. (Moscow. Vsesoiuznyi nauchno-
issledovatel'skii institut zheleznodorozhnogo transporta.
Trudy, no.215) (MIRA 15:1)

(Railroads--Freight)
(Weighing machines)

MALAKHOV, Konstantin Nikolayevich; KOROTKOV, Valentin Nikolayevich;
L'VITSYN, Nikolay Fedorovich; RIDEL', E.I., kand.tekhn.nauk,
red.; KHITROV, P.A., tekhn.red.

[Equipment used in freight handling] Tekhnika gruzovogo
khoziaistva. Moskva, Vses.isdatel'sko-poligr.ob"edinenie M-va
putei soobshcheniia, 1960. 166 p.

(MIRA 14:1)

(Railroads--Freight)

MALAKHOV, K.N.; GOLUBKOV, V.V.

Effectiveness of the performance of loading and unloading
operations by railroad equipment. Zhel.dor.transp. 41
no.12:12-15 D '59. (MIRA 13:4)

1. Glavnyy inzhener Glavnogo gruzovogo upravleniya (for
Malakhov). 2. Nachalnik otдела Glavnogo gruzovogo upravleniya
(for Golubkov).
(Railroads--Freight) (Loading and unloading)

MALAKHOV, K.N.

Basic trends in technical progress in the mechanization of
loading operations. Vest.TSNII MPS 18 no.6:3-5 S '59.
(MIRA 13:2)

1. Glavnyy inzhener Glavnogo gruzovogo upravleniya Ministerstva
putey soobshcheniya.
(Loading and unloading)

06178

SOV/115-59-11-6/36

Certain Problems of Weight-measurement Technique in Railroad Transportation

aya kontrol'naya laboratoriya po izmeritel'noy tekhnike (Chelyabinsk State Laboratory for Measuring Engineering) who used screw-type jacks for loading the balances for checking. This method was improved by the Senior Engineer S.I. Gauzner from the Komitet standartov, mer i izmeritel'nykh priborov. A note from the editor says that a basic improvement of RR car balances is necessary and that the USSR Ministry of Transportation must take appropriate steps in this direction. There are 2 diagrams.

Card 3/3

06178

SOV/115-59-11-6/36

Certain Problems of Weight-measurement Technique in Railroad Transportation

ciency of the balances. In this connection the authors mention the names of the following RR employees: Akinfiyev, Kharlamov, Stetsenko, Voskoboyev and Kaplev. Soviet designers work on electronic devices for weighing RR cars. Tensometric devices for static weighing of RR cars are built at the measuring instrument laboratory of the Nevskiy khimicheskiy kombinat (Neva Chemical Combine) in Leningrad under the supervision of Buzhinskiy. The scientific research section of the Odesskiy politekhnicheskii institut (Odessa Polytechnic Institute) works on new electronic RR car balances upon request of the Ministerstvo putey soobshcheniya SSSR (USSR Ministry of Transportation). These balances are designed for weighing the RR car while in motion with automatic recording of the weight. Concerning the repair of RR car balances, the authors state that the majority of mobile and stationary repair shops is well equipped. In this connection, the authors mention the Senior Technical Inspector Mikhaylov from the Chelyabinskaya gosudarstvenn-

Card 2/3

06178

SOV/115-59-11-6/36

12 (2, 3), 25 (1)

AUTHORS: Malakhov, K.N., Korotkov, V.N.

TITLE: Certain Problems of Weight-measurement Technique in Railroad Transportation

PERIODICAL: Izmeritel'naya tekhnika, 1959, Nr 11, pp 21-24

ABSTRACT: The authors review some problems encountered with RR car balances on Russian RR lines. After World War II, from 1948 to 1958, a great number of 100-ton RR car balances was installed at RR stations and at industrial installations. However, in recent years the construction of RR car balances decreased. One of the reasons for this reduction is the fact that the Soviet RR balances are outdated. Weighing one freight car lasts about 2.5-3 minutes. For manual unloading of RR cars, up to two hours are required, thus only 2-5% were spent for weighing the RR car. When using modern mechanical aids, the unloading of a RR car is performed within 6 to 30 minutes, thus 15-30% of this time is wasted for weighing the car. At some RR stations the operators introduced minor modifications for improving the effi-

Card 1/3

SOV/118-59-4-2/25
Loading and Unloading Operations in Railway Transportation
1 drawing.

ASSOCIATION: Glavnoye gruzovoye upravleniye MPS (Main Freight
Administration of the Ministry of Transportation)

Card 6/6

SOV/118-59-4-2/25

Loading and Unloading Operations in Railway Transportation

tainer freight yards and at coal and lumber loading points. The L'vov Auto-loader Truck Plant has also designed a truck loader type "4015" with a load-lifting capacity of 5 ton, to be used inside box-cars. For the automatic charging of storage batteries, the Saranskiy zavod elektropyamyateley (the Saransk Electric Rectifier Plant) has developed a small, portable battery charger with germanium valves (efficiency - 0.91), equipped with a time relay and a finder showing the extent of discharge of the battery. There is also mentioned a gasoline engine fork-lift loader type "4005" with a lifting capacity of 0.75 ton. These loaders are equipped with spark extinguishers and are completely safe. Their construction will be based on the 4004 battery loader, production of which has already started. The USSR Gosplan should organize the production of load-lifting equipment to such an extent as to satisfy the requirements of the USSR National Economy. There are 5 photographs, and

Card 5/6

SOV/118-59-4-2/25

Loading and Unloading Operations in Railway Transportation

ainers, piece-freight, packs and pallets are in use. The introduction of load-lifting machines made it possible to establish (from 1956 to 1958) 208 new container freight-yards and to mechanize the work in 183 warehouses. The Tsentral'noye proyektno-konstruktorskoye byuro avtopogruzchikov (Central Planning and Design Office for Automated Loaders) has developed a new 10 ton loader truck "4008" type for heavy loads such as 5 ton containers, logs, saw-material and coal. Productivity: 19 tons of containers per hour; 35.3 tons of long measure freight; 75th bulk freight. L'vovskiy zavod avtopogruzchikov (L'vov Auto-loader Truck Plant) is organizing the serial production of the 4008 truck mounted loader. The Proyektno-konstruktorskoye byuro upravleniya puti i sooruzheniy MPS (Planning and Design Office of the Track and Building Administration of the MPS) has designed a new type electric gantry crane (see fig. 5) with a load-lifting capacity of 6 tons to be used at big con-

Card 4/6

SOV/118-59-4-2/25 Loading and Unloading Operations in Railway Transportation

of all sewing machines; 67% of all tanned leather). Actually the USSR is leading the World with respect to the volume of container transportation and the number of containers used. Small containers (carrying capacity - 0.75, 1.0 and 1.25 ton) have been developed and will be tested; also, 10 and 20 ton containers are planned. It is furthermore planned to introduce special containers for the transportation of various liquids (oil, milk, wine), building materials (slate, glass, bricks), coal, ore, etc. At present, approximately 5 million tons of light freight are still transported without containers. Therefore, the author recommends the use of pallets. It is possible to achieve the complex mechanization of loading and unloading operations by using pallets in connection with various types of loaders. The Komitet standardov, mer i izmeritel'nykh priborov (Committee of Standards, Measures and Measuring Equipment) has already approved the GOST for flat pallets. At railway freight yards, 1,500 electric loaders, necessary for handling con-

Card 3/6

SOV/118-59-4-2/25

Loading and Unloading Operations in Railway Transportation

loading and unloading packed piece-freight. The Podol'skiy mekhanicheskiy zavod (The Podol'sk Machinery Plant) has started to load containers at their shops, thus avoiding transportation via warehouse. At railway stations, the elimination of auxiliary manual labor or intermediate operations could be achieved by establishing special loading bases for large-tonnage products (coal, building materials, lumber, cement, vegetables, etc.) and by transporting piece-freight in containers, packs or on pallets. This method facilitates loading and unloading. From 1952 to 1958, freight transportation in containers increased by more than 4 times and reached a total of more than 14 million tons. At present, 380,000 containers are in use and 890 special container freight yards have been built; 70% of all light freight is dispatched using universal containers (87% of all haberdashery; 73% of all clothes, linen, knitted fabrics and perfumery; 68-70% of all radio and TV sets, reproducers, and polygraphic products; 64%

Card 2/6

28(1)

SOV/118-59-4-2/25

AUTHOR: Malakhov, K.N., Chief Engineer

TITLE: Loading and Unloading Operations in Railway Transportation

PERIODICAL: Mekhanizatsiya i avtomatizatsiya proizvodstva, 1959, Nr 4, pp 6-10 (USSR)

ABSTRACT: According to the figures of the forthcoming 7-Year-Plan, railway traffic, and consequently the volume of loading and unloading operations at freight yards, will increase considerably. The introduction of mechanization means raised labor productivity of loading and unloading operations in 1958 by 40%, as compared with 1950, and made it possible to release almost 10,000 workers from heavy work. The main task at present is to mechanize auxiliary manual labor in opening and shutting the doors of gondola cars, in fastening and removing slings from containers, in leveling light-weight granular and chemical freight

Card 1/6

in box-cars and particularly in handling, i.e.

MALAKHOV, K.N.

Task of improving the organization of grain transport. Zhel.dor.
transp. 39 no.9:6-9 S '57. (MIRA 10:10)

1. Glavnyy inzhener Glavnogo gruzovogo upravleniya Ministerstva
putey soobshcheniya. (Grain--Transportation)

MAKHOTKIN, N.; MALAKHOV, K.

For coordinated work on the part of railroad and inland transportation workers. Rech. transp. 22 no.11:10-11 N '63. (MIRA 16:12)

1. Zamestitel' nachal'nika Upravleniya gruzovoy i kommercheskoy raboty Ministerstva rechnogo flota (for Makhotkin). 2. Zamestitel' nachal'nika Glavnogo gruzovogo upravleniya Ministerstva putey soobshcheniya (for Malakhov).

MALAKHOV, I.Ye.

Restoration of proteins in extremital muscles during anoxia caused
by a tourniquet. Khirurgia 40 no.11:99-103 N '65. (MIRA 18:7)

1. Kafedra biokhimii (zav. - prof. V.M.Kushko [deceased]) II Moskovskogo
gosudarstvennogo meditsinskogo instituta imeni Pirogova.

BALABA, T.Ya. (Moskva B-64, Basmannyi tupik, d.6a, kv.26); MALAKHOV, I.Ye.

Abstracts. Ortop., travm. i protez. 26 no.3:71-72 Mr '65.
(MIRA 18:7)

1. Iz TSentral'nogo instituta travmatologii i ortopedii (dir. -
chlen-korrespondent AMN SSSR prof. M.V.Volkov) i kafedry bio-
khimii II Moskovskogo meditsinskogo instituta (rektor - prof.
M.G.Sirotkina).

MALAKHOV, I.Ye.

Intensity of protein metabolism in the liver following the
use of a tourniquet. Uch.zap. 2-go MGMI 17:205-210 '58.
(MIRA 13:7)

(BLOOD--CIRCULATION, DISORDERS OF) (PROTEIN METABOLISM)
(LIVER) (METHIONINE)

BALABA, T.Ya.; MALAKHOV, I.Ye.

Influence of a novocaine block on the respiration of muscles
following the application and removal of a tourniquet. Uch.
zap. 2-go MGMI 17:149-157 '58. (MIRA 13:7)
(BLOOD--CIRCULATION, DISORDERS OF) (NOVOCAINE)
(MUSCLE)